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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant: Spurr

Serial No.: 10/022,674

Examiner: Lugo, Carlos

Filed: December 20, 2001

Group Art Unit: 3677

Title: LATCH ARRANGEMENT

Mail Stop Appeal Brief-Patents  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF UNDER 37 C.F.R. § 1.192**

Sir:

Subsequent to the Notice of Appeal filed on February 19, 2004, Appellant now submits this Appeal Brief under 37 C.F.R. § 1.192 appealing the Final Rejection dated October 23, 2003. Each of the topics required by 37 C.F.R. § 1.192 is presented in this Brief and is labeled appropriately.

A check in the amount of \$330 is enclosed for the filing fee. If any additional fees or extensions are required, the Commissioner is authorized to charge Deposit Account No. 50-1482, in the name of Carlson, Gaskey & Olds.

**I. REAL PARTY IN INTEREST**

Meritor Light Vehicle Systems (UK) Limited is the real party in interest of the present application. An assignment of all rights in the present application to Meritor Light Vehicle Systems (UK) Limited was executed by the inventor and recorded by the U.S. Patent and Trademark Office at Reel 012608, Frame 0517.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Appellant, the Appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

## **III. STATUS OF CLAIMS**

Claims 1-6, 8-12 and 18-20 stand finally rejected, and claims 7 and 13-17 were objected to as being dependent on a rejected base claim. The claims are presented in the Appendix. Accordingly, the Appellants hereby appeal the final rejection of claims 1-6,8-12 and 18-20.

## **IV. STATUS OF AMENDMENTS**

All amendments have been entered.

## **V. SUMMARY OF INVENTION**

This invention relates to a latch arrangement 10 for a vehicle door that disables use of an interior or exterior door handle to prevent unauthorized access to the vehicle. The latch arrangement 10 includes features that disable use of the door handles with or without power such that access to the vehicle is prevented in the event that no power is available.

The latch arrangement 10 includes a latch 12, manually actuatable elements 20,21, a release mechanism 16 and a power control means 18. The latch 12 includes a pawl pin 14 that moves between a retained position A and a release position B to cause release of a striker (not shown). The release mechanism 16 is movable by one of the manually actuatable elements 20,21 from a latched position to an unlatched position. In the unlatched position the release mechanism 16 provides for unlatching of the latch 12, meaning movement of the pawl pin 14 from the retained position A to the release position B. (Page 2 paragraphs 17-18, Figure 1).

The release mechanism 16 includes a release lever 26 and a lock/unlock lever 32. Actuation of the actuatable elements 20,21 causes rotation of the release lever 26 about a pivot C, that in turn causes rotation of a release link 28 about a pivot point F. The pivot point F is disposed on a lock/unlock lever 32. The release link 28 includes an abutment 22 that will contact the latch 12 when the power control means 18 allows rotation of the lock/unlock lever 32 about the pivot point G. (Figure 1)

The power control means 18 includes the magnetic pawl 44 and an electromagnet 48. The power control means includes a first, second and third condition. In the first condition the power control means 18 is in a non-powered condition and the magnetic pawl 44 is engaged with an abutment 39 to prevent rotation of the lock/unlock lever 32 (Page 7, paragraph 55, Figure 1B). Without rotation of the unlock/lock lever 32, manual actuation of one of the manually actuatable elements 20,21 does not cause the release mechanism 16 to unlatch the latch 12. This is so because, when the lock/unlock lever 32 does not rotate about pivot point G, the abutment 22 does not align with and move the pawl pin 14. In the first condition, the power control means 18 remains in the non-powered condition during any actuation of the manually actuatable element 26. Accordingly, in the first condition, because the abutment 22 is not aligned with latch 12, the latch cannot be unlatched.

In the second condition, the electro-magnet 48 is powered and actuation of the manually actuatable elements 20,21 still does not cause the release mechanism 16 to unlatch the latch 12 by moving the pawl pin 14. This is so, because in the second condition the electromagnet 48 is energized and holds the lock/unlock lever 32 in the position shown in Figure 1. As discussed above, holding the lock/unlock lever 32 from rotating about the pivot point G prevents alignment of abutment 22 with the pawl pin 14, thereby preventing unlocking of the latch 12. In the non-rotated position (Page 7, paragraphs 51-53, Figure 4), the abutment 22 of the release link 26 does not align with and move the pawl pin 14. Therefore the latch does not unlatch in the second condition of the power control means 18.

In the third condition of the power control means 18, the electro-magnet 48 is not energized, and the magnetic pawl 44 does not prevent rotation of the lock/unlock lever 32.

Accordingly, the lock/unlock lever 32 is free to rotate about pivot point G. Rotation about pivot point G aligns abutment 22 with the pawl pin 14. The release link 28 can then move the pawl pin 14 to the release position B. This provides for unlatching of the latch 12 (Page 8, paragraphs 58-62, Figure 2).

## **VI. REFERENCES OF RECORD**

In the Final Rejection dated October 23, 2003, the Examiner relied upon a single prior art reference:

- (1) U.S. Patent No. 4., 027,350 to Periou ("Periou").

## **VII. ISSUES**

The issues addressed in this Appeal are:

- (1) whether claims 1, 2, 4-6, 8-12 and 18-20 are patentable under 35 U.S.C. § 102(b) over Periou; and
- (2) whether claim 3 is patentable under 35 U.S.C. § 103(a) over Periou in view of ordinary skill within the art.

## **VIII. GROUPING OF CLAIMS**

For purposes of this Appeal, the claims are grouped as follows:

- (1) Claims 1, 2, 3, 5, 8-9,11,12 and 18-20 stands or fall together;
- (2) Claim 4 stands or falls alone;
- (3) Claim 6 stands or falls alone; and
- (4) Claim 10 stands or falls alone.

## **IX. ARGUMENTS**

(1) Claims 1, 2, 3, 5, 8, 9, 11,12 and 18-20 are patentable under 35 U.S.C. § 102(b) over Periou.

Independent claim 1 recites a power control means having a first, second and third condition. Claim 1 further recites that in the first condition the power control means is in a non-powered condition and actuation of the *manually actuatable element does not* cause the release mechanism to unlatch the latch. The claim requires that the power control means remains in the non-powered condition during actuation of the manually actuatable element. This limitation requires that actuation of a manually actuatable element does not cause unlatching, when the power control means is in a non-powered condition. The office action states that this limitation is disclosed by Periou at Col 4, Lines 48-51. Appellant disagrees.

Periou does not disclose the first condition for a latch that prevents actuation of a latch without power in response to actuation of a manually actuatable element. Periou requires electrical energy to cause movement of a plunger, and without movement of the plunger the latch can be opened by a door handle.

This is contrary to the limitations present in Appellant's claim 1. Periou requires that a coil (32) be powered to prevent actuation of the lock. Periou discloses a plunger (33) that provides a coupling between a catch (9) and a lever (12). The plunger (33) is moved between a coupled and decoupled position by the coil (32). The plunger (33) is biased into the coupled position by a return spring (36). In the coupled position, the plunger (33) is disposed within openings in both the lever (12) and catch (9). Movement of the lever (12) can therefore cause movement of the catch (9) to allow unlatching of the latch. Energizing the coil (32) causes movement of the plunger (33) out of the opening in the catch (9) such that movement of the lever (12) does not cause movement of the catch (9). Whenever the coil (32) is un-powered, the plunger (33) is biased into the coupled position that allows movement of the lever (12) to move the catch (9) (Col 4, lines 48-57, Figure 2).

Operation of the Periou device includes two conditions, a normal condition and an anti-theft condition. The normal condition allows unlocking of the latch. However, in this condition no power is supplied to the coil (32). (Col 4, lines 48-51) Without power to the coil (32) the plunger remains within the openings (34 and 35) of the catch (9) and lever (12). Accordingly, movement of the lever (12) moves the catch (9).

In the second (anti-theft) condition, the coil (32) begins in a non-powered state with the plunger (33) providing the coupling between the catch (9) and the lever (12). Actuation of a door handle causes movement of rod (16). Movement of the rod (16) causes a slide (18) to be driven in a direction causing a contact (25) to close and *supply power to the coil (32)*. The *powered coil (32)* retracts the plunger (33), to prevent unlatching of the latch. (Col 4, lines 51-57).

Periou does not disclose a power control means for a latch that prevents actuation of a latch without power in response to actuation of a manually actuatable element. Periou requires electrical energy to cause movement of a plunger (33), and without movement of the plunger (33) the latch can be opened by actuation of a manually actuatable element.

Accordingly, Periou does not disclose a first condition where a power control means is in a non-powered condition where actuation of a manually actuatable element does not unlatch the latch and therefore does not anticipate all the limitations in claim 1. The final rejection to claim 1 is improper and should be withdrawn.

Claim 2, 3, 5, 8-9, 11, 12 and 18-20 ultimately depend from claim 1 and are therefore also allowable for the reasons same reasons that claim 1 is allowable. Accordingly, the rejection to claims 2, 3, 5, 8, 9, 11, 12 and 18-20 should be withdrawn.

(2) Claim 4 is patentable under 35 U.S.C. § 102(b) over Periou.

Claim 4 depends from claim 2. Claim 2 includes the limitation that a part of the release mechanism is retained in a locked position by a power control means. Claim 4 includes the further limitation that the part of the release mechanism is retained in the locked position by a pawl 44. The office action dated October 23, 2003 states that Periou discloses that the release mechanism is retained by a pawl or sliding bolt (33). Periou discloses only that the (sliding bolt) plunger (33) is retained in a locked or decoupled position by magnetic force created by the coil (32).

Periou does not disclose any pawl that would retain the plunger (33) in the locked or decoupled position. For this reason, the Periou plunger (33) is not retained by any pawl for holding any part of the release mechanism in a locked position. Accordingly, Periou does not anticipate claim 4 and the rejection should be withdrawn.

(3) Claim 6 is patentable under 35 U.S.C. § 102(b) over Periou.

Claim 6 depends from claim 2 and includes the further limitation of an electromagnet that retains the part of the release mechanism in the unlocked position. In the unlocked position, the pawl 44 does not engage the abutment 39 of the lock/unlock lever 32. This allows movement of the lock/unlock lever 32. Periou does not disclose that the coil (32) retains any part of the release mechanism in an unlocked position. Periou only discloses that the electromagnet (32) retains the plunger (33) in a locked position where the catch (9) and lever (12) are decoupled. The electromagnet (32) does not hold a part of a release mechanism in an unlocked position. In Periou, retaining the plunger (33) with the coil (32) provides a locked position where actuation of slides 18,19 does not cause unlatching. For these reasons, claim 6 is not anticipated by Periou and the rejection should be withdrawn.

(4) Claim 10 is patentable under 35 U.S.C. § 102(b) over Periou.

Claim 10 depends from claim 8. Claim 8 recites the limitation that the power control means includes a magnetic pawl movable between a locked and unlocked position. Claim 10 includes the further limitation that the magnetic pawl is pivotally movable and the center of gravity of the pawl is substantially at the axis of the pivot. Periou does not disclose a pawl that is pivotal. In the final rejection, the Examiner explains only that Periou discloses a sliding bolt (33). The Periou plunger (33) is not pivotally movable in any way. Further, the Periou plunger (33) does not disclose that the center of gravity of a pawl is at the axis of the pivot. For these reasons, Periou does not anticipate claim 10, and the rejection should be withdrawn.

**X. CONCLUSION**

For the reasons explained above, the final rejection of the claims 1-6, 8-9,11,12 and 18-20 is improper and should be withdrawn.

Respectfully submitted,

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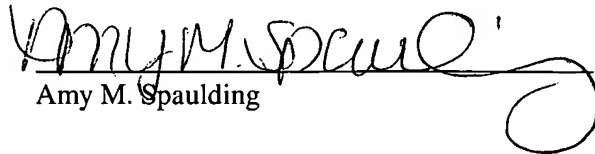
Dated: April 19, 2004





**CERTIFICATE OF MAILING**

I hereby certify that this appeal brief (in triplicate) is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Mail Stop Appeal Brief, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 19, 2004.

  
Amy M. Spaulding

## **XI. APPENDIX**

### **Claims on appeal**

1. (Previously Presented) A latch arrangement including a latch, a manually actuatable element, a release mechanism and a power control means, the latch being operable to releasably retain a striker in use, the release mechanism being capable of being moved by the manually actuatable element from a latched position to an unlatched position wherein it unlatches the latch, the power control means having a first, second and third condition in which;

with the power control means in the first condition the power control means is in a non powered condition and actuation of the manually actuatable element does not cause the release mechanism to unlatch the latch, said power control means remains in said non powered condition during actuation of the manually actuatable element.

with the power control means in the second condition the powered control means is in a powered condition and actuation of the manually actuatable element does not cause the release mechanism to unlatch the latch,

and with the power control means in the third condition the power control means is in a non powered condition and actuation of the manually actuatable element causes the release mechanism to unlatch the latch.

2. (Previously Presented) A latch arrangement as defined in claim 1 in which a part of the release mechanism is retained in a locked position by the power control means to provide for a lock condition of the latch.

3. (Original) A latch arrangement as defined in claim 2 in which said part of the release mechanism is retained by magnetic attraction.

4. (Original) A latch arrangement as defined in claim 2 in which said part of the release mechanism is retained by a pawl.

5. (Previously Presented) A latch arrangement as defined in claims 2 in which said part of the release mechanism is a lock/unlock lever which is retained in a first position by the power control means to provide for the lock condition and is allowed to move to a second position to provide for the unlocked condition.

6. (Previously Presented) A latch arrangement as defined in claims 2 in which the power control means includes an electromagnet to retain said part of the release mechanism in the unlocked position.

7. (Original) A latch arrangement as defined in claim 6 in which the electromagnet is incapable of moving the said part of the release mechanism from the unlocked to the locked position.

8. (Previously Presented) A latch arrangement as defined in claim 1 in which the power control means includes a magnetic pawl movable between a locked and unlocked position.

9. (Original) A latch arrangement as defined in claim 8 in which the electromagnet is pulsed to move the pawl between the locked and unlocked position.

10. (Original) A latch arrangement as defined in claim 8 in which the pawl is pivotally movable and the center of gravity of the pawl is substantially at the axis of the pivot.

11. (Previously Presented) A latch arrangement as defined in claim 1 in which the release mechanism is designed to return to a rest position from a release position upon release of the manually actuable element.

12. (Original) A latch arrangement as defined in claim 11 in which the release mechanism is biased to the rest position by resilient means.

13. (Original) A latch arrangement as defined in claim 12 in which a first resilient means biases the release mechanism to the unlocked position from the released position and a second resilient means biases the release mechanism to the rest position from the unlock position.

14. (Original) A latch arrangement as defined in claim 1 in which unlatching of the latch arrangement causes the release mechanism to move to a locked condition

15. (Original) A latch arrangement as defined in claim 13 in which the release mechanism can be retained in the locked condition whilst the latch is in its unlatched condition.

16. (Previously Presented) A latch arrangement as defined in claim 14 in which the release mechanism is retained in the locked condition by putting the power control means into the first condition.

17. (Previously Presented) A latch arrangement as defined in claim 14 in which the release mechanism is retained in the locked condition by putting the power control means into the second condition.

18. (Original) A latch arrangement as defined in claim 1 in which the latch is further movable between a latched and released position by a powered released actuator.

19. (Previously Presented) A latch arrangement as defined in claim 1 in which the power control means is movable between the locked and unlocked conditions by manual operation of a coded security device.

20. (Previously Presented) A latch arrangement as defined in claim 19 in which said coded security device is a key.